

09/509188

430 Rec'd PCT/PTO 23 MAR 2000

PCT/FR98/02042

WO 99/15678

- 1 -

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT:

(A) NAME: INRA (INSTITUT NATIONAL DE
LA RECHERCHE AGRONOMIQUE)
 (B) STREET: 147 RUE DE L'UNIVERSITE
 (C) CITY: PARIS
 (E) COUNTRY: FRANCE
 (F) POSTAL CODE: 75007

(ii) TITLE OF THE INVENTION: Microspore-specific promoter and method for producing hybrid plants

(iii) NUMBER OF SEQUENCES: 3

(iv) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk
 (B) COMPUTER: IBM PC compatible
 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 497 base pairs
 (B) TYPE: nucleotide
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: M3

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

TTTGGATCTT TCCATGACCC CTTCTTGACC GGCTATGTCA AGCTACATTG CTCCACCGTT	60
GTTGGATCTA CTTCACCTCC TCCTTCACAG GCTCCTTAC ATGCTCCTTC TTCACAGGGCT	120
CCTTCACATG CTCCCTCACCA TGCTCCTTCA CAGGCTCCTT TAAATGCTCT TTTAAATGCT	180
CCTTTACATG CTCCCTTACA TGCTCCTTCA CAGGCCCTT CACAGGCCCTT TTCACAGGCC	240
CCTTTACATG CTCCCTTACT GCCCCCTTCG CAGGCTCCTT CACCGGCTCA GTGATTTAGC	300
TATTTGATAG AATTACTCAA GTAATGATGC CCTAGGGAGT TTGAGTTTTT CTCGTGTTT	360

AAAGTTTGT GTTTATTTG AGAAAACCGT CTTGGATTT TAACCTCACT TTGATTTTT	420
CCCTTATACA ATTTAAATT AGAGTTACT TATTAATTAA ATAATTAGA TGGTACTAAG	480
TTTTATCAT AATAAAA	497

(2) INFORMATION FOR SEQ ID NO: 2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 674 base pairs
 - (B) TYPE: nucleotide
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (ix) FEATURE:
 - (A) NAME/KEY: M3.21
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

TCTTGCTATG ATTTCTTCA TAAGATGTGT CACATCCAAA GTCACAGCAA CAGAACTAGA	60
GTCATCAACT AACCAAGAGC TCTTCTTAC CGGGCACTTG CCTCGCTTTC ACCCCAAAGCC	120
ACATTGGCCG TTCTGTGGCT CCGGAAAAGC CTTCCCTGCA GGCCACTTCC GACCAACTCC	180
GTTCCCATCTG CCACAGGAAG TCACCAGATG CTTGTCCGAC AAGAAGGGAGG TAGGTACATG	240
TTTGATGAT ATCGTTGAGA CTTTCTTCAC CAGGAAAGCC GTTATTGGAT CGGAATGTTG	300
CGCCGCGATC AAGAAGATGA ACAAAAGATTG TGAGAAGACC GTCTTGGAT CTTCCATGA	360
CCCCTTCTTG ACAGGCTATG TCAAACATACA TTGCTCCACC GTTGTGGAT CTACTTCACC	420
TCCTCCTTCA CATGCTCCTT CACAGGCTCC TTTACATGCT CCTTCACAGG CTCCTTTACA	480
TGCCCTTCA CAGGCTCCTT TACTGCCCTT TTACACAGCCT CTCCACCCGG CTCAGTGATT	540
TTAGCTATTT GTTAGAATTA TTCAAGTGT GATGTCCTAG GGAGTTTAG GTTTTCTTG	600
TTTAAATT TTGTGTTAT TTGAGAAAA CCGTCTTGG ATCTTAACCT CACTTGATT	660
TTTCCTTAT ACAAA	674

(2) INFORMATION FOR SEQ ID NO: 3:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2853 base pairs
 - (B) TYPE: nucleotide
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: BnM3.4

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GGATCCCACA AAGAAAACCG AAGAAGCAAA TGTTTCTAC CTTCTAAAT ATATATTGT	60
TTCAGCCTCA TCAATGACA AACAACTCCT TAGCTCAATG GTATAATGT TGGTGTAG	120
ATTCAATAA CCCGGGTTCG AGTCATAGAC TTGACACTT TTCACACTT TAAAGTGG	180
AACGCACATA TCGCTGACGT GTCGCATCAG GAGTGATGCA ACTGCTCTAT TATAATGTAG	240
ATTTAAAAGT GGAACCCACG TATCGCTGAC GTGTCGCATC AGGAGTGATG CAACTGCCAT	300
ATTATAACGT AGATTTGACG TTATTCCTT TTAAATCTTA ATAATAATAC CAGNGCTTT	360
ACTTATTAAT TTTGNGCATN GTTATCATGG TTTATGCNCT CTTTTTTT GANCCGTTGA	420
TTGGTTTATG CTTATTTGAA TGTNGCCNAC GTAAGAAATG AAGAACAAATT TATATTTGGA	480
GAAAATATAA TTAAATATGT TCAATATATA GAGAAAATAT TATNCCTTGA TGTACTGTA	540
TGGATGCGAG TAGAAGATCT TTGAATAATA TTTGAGAACT TGCCTTTCT CAAAAAGTAA	600
AATATTTGAT ATGTAACCTA AGTTAACACA TGAAAATTAA AAAAATTAA AATCAAAATA	660
AAAAAAACTG ATAGTGATCT ACCCTCAAC GTTTGAAC TATTCTGGT TCACCCCCCTA	720
AACCTCTAAG TTCACCAAAC AATAAAATT CATTATTGCA TATTCTATAT CTTTAGAAA	780
GTGAAACAAA ATATTATCAA GTTATATTAT GTTTTCAAA TAAAAGATA AAAAATAAAT	840
AAAAAATAAT AGTAGTTACA AAAAAAAAAA ATTAATATTT TTACCAAGCGT CANAAAACAC	900
TAAAACCTAA ACCCTAAATA TTAAACCTT AGGTAAACCC TAAACCTTG GATAAAATCTT	960
AAACATTAAC CATTAAAACA CTAAACCTA AATCCTAAAC TCTAAACCT TAAGTGTAA	1020
AATGTTAGT GTTTTGATT TATAGTTAG GATTATCCA AAGGTTAAG GTTACCCAA	1080
GAGTTTATGG TTTAGGGATT ATGACTTAGG ATTTAGTGT TTACTGACGA CGTTCAAAGT	1140
ATTTTTAA AAATATTTT TTTGTAACAA CTACTATTT TATTATTTT TTACCTTT	1200
TATATTAAACATAATATA ATTTAATACT CCATCTGTT CATATTAAGT GTCATTGAA	1260

CATTATTTT TTGTTACAAA AAAATTGTCA CTTAGAATT CCAATGCAAA ATTTATTTAT	1320
TTTCAGCTA AAATTAATTG CAAAGTGCAT TGATCTTATA AATAATTTA TTTATCTCAA	1380
ATGCTATATT GGTCAAACAT GTGTAATTAA TAGAAAACCTTA ATTATATTTC ATTTATTTTT	1440
TCTTAATCTG TGAAAAATG TCAAAGTAAA ATTTATTTAG AAACGAATTG AGTAATATT	1500
TGTTTCATTT TTTAAAAGAT ATCGAATATG AAATAACACA ATTTTATTGT ATGATGAACC	1560
AAAAAAATTCA TCCTAAGAAG GTGAACGCAA GAATAAGTCA ACGTTTGGA GAAAGCTAAC	1620
TATGGCCCAA AGTCATCAA ATCTTCTTG TATTTATCAA AATCCTTACA AATTTAGTTA	1680
GAGTTAATAG ACCAAACACA TGATTATCAT CATATTAGAA TATTCTAAAA AATTACTAGC	1740
GAATAATTAA AATCTTCTT TTATTTATCA AAATCCTTAT AAAAACTTAT TTATATATAC	1800
AAAAACAATT TTAATTAAAA GAAAATAAGG GACCATGGAT ACATAAAAAT ATATGTTATT	1860
TCTTAAGATA GTGATAATAT TAATATATAC CAGTCCATAT ATTTATCAA ATAATAATA	1920
TTTTTCGTAG TCCGATAATC ATTACTATAA ATTCACTAAA CCACATGTAG ATGTATATT	1980
TATTTATATA TATATATATA AACCCCTAACG CCTTACCACT CGATAACCAT CAAAACCTTT	2040
CTTCTCGTTT CGCTAACTCA AGGCTTCGAA AAGTAAAAAA AACAAATGAAG AATGTCACAC	2100
TTGTTCTTGC TATGATCCTC TTCTTAAGCT GTGTCACATC CAAAGTTACA GCAACAGAAC	2160
TAGAGTCATC AACTAACCAA GAGCTCTTCC TATCGCGGCA CTTACCTCGC TTTCACCCCCA	2220
AGCAACATTG GCCGTTCCGT GGCTCCGGAA AAGCCTTCCC TGCAGGCCAC TTCCGACTAA	2280
CTCCGTTCCA TCTGCCACAG GAAGTCACCA GATGCTTGAA CGACAAGAAC GAGGTAGGTA	2340
CATGTTTAA TGATATCGCT GAGACTTTCT TCACCCAGGAA AGCCGCTATT GGATCGGAAT	2400
GTTGCGCCGC GATCAAGAACG ATGAACAAAG ATTGTGAGAA GACCGCTTT GGATCTTCC	2460
ATGACCCCTT CTTGACCGGC TATGTCAAGC TACATTGCTC CACCGTTGTT GGATCTACTT	2520
CACCTCCTCC TTCACAGGCT CCTTTACATG CTCCCTCTTC ACAGGCTCCT TCACATGCTC	2580
CTTCACATGC TCCTTCACAG GCTCCTTAA ATGCTCCTT AAATGCTCCT TTACATGCTC	2640
CTTTACATGC TCCTTCACAG GCCCCTTCAC AGGCCCCCTC ACAGGCCCCCT TTACATGCTC	2700
CTTTACTGCC CCCTTCGCAG GCTCCTTCAC CGGCTCAGTG ATTTAGCTAT TTGATAGAAC	2760
TATTCAAGTA TTGATGTCCT AGGGAGTTT AGTTTTTTC TTGTTTAAA ATTTTGTGTT	2820
TATTTGAGA AAACCGTCTT TGGATTTAA CTT	2853